

#### **ABSTRACT OF THE DISCLOSURE**

A ground fault circuit interrupter (GFCI) with built in intelligence is described that includes circuitry to automatically indicate a device miswiring condition. When a GFCI is wired with its AC and LOAD terminals reversed, downstream devices are still protected in the event of a ground fault but the duplex receptacle on the GFCI itself is not. The invention incorporates miswiring sense circuitry that automatically triggers the generation of visual and audible alarms in the event a miswiring condition is sensed. The invention employs an alarm inhibiting technique that incorporates sense circuitry connected to the AC terminals on one side of the internal GFCI switches or relays and alarm generation circuitry connected to the LOAD terminals on the opposite side.